Chapter I

Introduction and Research Design
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INTRODUCTION

Risk and income are always interrelated. The investment in share market was considered as a source of income for only a few investors in the early days. After the implementation of economic reforms, the level of awareness of retail investors over the investment in share market has gradually increased. The retail investors perceive that they should earn more but with less risk. The attractive offers made by finance companies regarding higher incentives induced the investors to invest their stake money in these companies. Not only the people with over surplus revenue, the employees, working or retired with regular income have invested in finance companies. As a consequence of failure of these companies, the retail investors were hardly in need of alternative source of investment.

The investors are classified as institutional investors and individual investors. There could be yet another classification of investors as investors and traders. The investors are those who invest their stake money with a view to get standard but regular income. They perceive less risk on their investment. The other kind of investors are traders. They expect higher returns out of their investment and are willing to accept higher degree of risk. They follow different strategies while making investment in shares and securities. These strategies include buy and hold; and sell now buy later.
The investors who prefer to have regular income with less risk attached thereto buy the shares in the primary market. However, the investors who would like to have higher return opt for the secondary market. Those who intend to reduce the tax liability also prefer to invest in shares and securities through the primary market. The investors then decide the industry in which they have to invest in order to get maximum returns. They analyze various industries based on their past performance and current market scenario. In India, Cement industry has been emerging as one of the crucial sectors for the institutional as well as individual investors.

Shares and stocks are one of the best investments an investor can make – if he picks the right ones. It is crucial to make the right choice. However, there is no specific rule for the selection of right shares. It could be noted that the time tested rules of investing would enable the investor to make his investment a profitable one.

India is a “bottom-up” stock market and that has nothing to do with the habits of Indian investors. It means that day traders and fund managers focus on specific stocks; not on sectors or macro-economic variables. Successful have always been “desert flowers” – companies which delivered under adverse circumstances. The bottom-up approach is also driven by genuine concerns about the honesty and competence of managements in an environment where corporate governance is a new, little understood concept.
However, whatever the focus of investors, any company by definition, runs a business. So, stocks can be classified and segmented into industrial sectors. And, if the macro economic variables favour certain sectors, those will generate higher profits than the corporate economy at large. The sectors, which attract higher fund inflows, are known as ‘hot sectors’.

SHARE PRICE MOVEMENT

The share price movement is analysed broadly with two approaches, namely, fundamental approach and the technical approach. Fundamental approach analyses the share prices on the basis of economic, industry and company statistics. If the price of the share is lower than its intrinsic value, investor buys it. But, if he finds the price of the share higher than the intrinsic value he sells and gets profit. The technical analyst mainly studies the stock price movement of the security market. If there is an up trend in the price movement the investor purchases the scrip. With the onset of fall in price he sells it and move from the scrip. Basically, technical analysis and fundamental analysis aim at good return on investment.

The price movements of stocks can be compared to a random walk. They are totally unpredictable. They could go up, stay steady, or come down. It is near impossible to make predictions about price movements. They are merely random numbers.

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Many academics have raised a fundamental question: “Is there any proof that the historical data on share prices can help in predicting future prices?” After a great deal of research they have come to the conclusion that share prices indeed fluctuate randomly and that no expertise is required for success in investments based purely on trying to predict short-term price movements. There are two types of share movement as explained hereunder.

There are several theories to explain stock prices though Random Walk Theory (RWT) and Efficient Market Theory (EMT) have been more popular among researchers despite the fact that empirical evidence does not lend credence to the assumptions of perfectly competitive stock markets or their random operation.

RANDOM WALK THEORY

Random Walk Theory is perhaps one of the most publicized stock market theories in the recent past. In simple language, the Random Walk Theory runs somewhat along these lines: The share prices, on any given day, are already a fair reflection of value. They do not change in a systematic manner. They change only if an unexpected event occurs, such as a change in government, an increase in the petrol prices, or the imposition of new taxes by the government. Since investors do not know what tomorrow’s news will be, academics claim, that no

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one can predict whether the next price change will be favourable or unfavourable. Therefore, they argue share prices move randomly over time.

According to Random Walk Hypothesis, the value of a share cannot be determined precisely. The price in the market place tends to circle randomly around the intrinsic value of the share. As new information is received, it is transmitted to the market place and a new value is established. Consequently, the prices adjust or there may be a lag in the adjustment process. In addition, the adjustment process assumes that any price change is independent of the previous ones, which is really the definition of a random market. What is more, the sequence of share price changes has no ‘memory’, and so the past sequence cannot be used to predict the future.

Thus the share price movement is random as specified in the random walk theory, since its movement is neither systematic nor uniform to be predicted. The varying share prices serve as the basis for recommendation to buy or sell shares. Even though the share prices cannot be accurately predicted, they could be forecasted to some extent based on the previous experiences and close observation over the happenings in the market as well as the country.

EFFICIENT MARKET THEORY

There are several research studies which have been developed to analyze stock price fluctuations and to explore the possibilities of predicting them with some degree of certainty. An important theory is the Efficient Market Theory (EMT)\(^4\). EMT postulates that it is impossible for anyone to outguess the market. An efficient market is one where fresh information is understood quickly by all the market players and gets reflected immediately in the market prices.

The stock prices move, as indicated, in a random manner; up today, down tomorrow, and either up or down the day after. In an efficient market, the current price reflects both the current news and old news. The arrival of fresh reports is always unpredictable. The news is random and hence the price is also random. EMT argues that there is no way to beat the market; since there is no way one can forecast the unpredictable. Whatever is predictable is already known to every one, just as one can easily predict the onset of the monsoons by looking at satellite pictures. Thus, stock markets continue to be 'efficient' (in the economic sense of the term), in a self-monitoring state of equilibrium. However, there are some exceptions to EMT, like insider trading, price rigging by a bull syndicate for a short period, temporary price differences between two markets.

The investors analyze on the basis of the past performance of the companies as well as the current market price of equity shares of the companies.

INVESTMENT ANALYSIS

Investors purchase equity shares with two basic objectives - first, to make a capital profit by selling at higher prices at a later stage and second, to earn dividend income. Dividend income and price changes are the two basic ingredients that make the return from equity investment. Unlike interest from fixed income securities, which is fixed in absolute amount, the return from equity investment is not fixed. The reasons could be that neither the dividend income is fixed nor the price changes are equal for all time periods. Return on equity investment is uncertain and affected by a host of factors, some of which are economical, political and social factors. An investor has to carefully understand and analyze all these factors and other determinants of equity shares. There are basically two approaches to study security prices — Fundamental Analysis and Technical Analysis.\(^5\).

FUNDAMENTAL ANALYSIS

In order to win in the share market, one needs to carefully study the company he is interested in, the industry it belongs to, as well as the overall state of the economy. Typically, in a booming economy the stock markets are also buoyant. When the economy is downbeat, on the other hand, the stock markets too grow subdued. If a certain industry is doing well, the scrip of several companies in that industry register impressive gains. On the other hand, if an

industry is facing serious problems, the companies in that industry register a decline in their share prices.

Fundamental analysis is a time-honoured, value-based approach based on a careful assessment of the fundamentals of an economy, industry and company. A fundamental analyst is not unduly influenced by what happens on a particular day. He studies the general economic situation, makes an evaluation of an industry and finally does an in-depth analysis, both financial and non-financial of the company of his choice. Thus, it is a three-phase analysis of: (i) economy, (ii) industry, and (iii) the company.

**ECONOMIC ANALYSIS**

The stock market does not operate in a vacuum. It is an integral part of the whole economy of a country, more so in a free economy like that of the United States and to some extent in a mixed economy like India.

To gain an insight into the complexities of the stock market, one needs to develop a sound economic understanding and be able to interpret the impact of important economic indicators on stock markets. The following are some important factors:

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Economic growth

The economic prosperity of a nation is measured in terms of its gross national income, per capita income and its gross national product (GNP).

Monsoon and agricultural production

A favourable monsoon has a positive impact on stock markets. With good monsoons, the Indian economy performs well and the GNP posts a promising growth rate. As people’s purchasing power goes up, the aggregate demand increases and companies do well. Hence, their profits double and the investors benefit. The impact of the monsoons is more pronounced on agro-based industries such as fertilizers, pesticides, seeds, edible and non-edible oils. The overall prosperity for an agrarian Indian economy and its demand for consumer goods like textiles, batteries, mopeds, etc. are determined by the monsoons.

Industrial production

Industrial products trends should be carefully monitored. An upswing in industrial production is good for the economy and a downswing rings an alarm. As India gets more and more industrialized, the relative importance of industrial production will increase.

Inflation

Inflation erodes purchasing power considerably. A low rate of inflation indicates healthy economic conditions. The stock markets are comfortable with low levels of inflation.
Interest rates

A low rate of interest is a must for economic development. The prime lending rates in Tokyo, New York and London are much lower than in India. When the cost of money is high, one cannot compete effectively in international markets.

Foreign exchange reserves

A developing economy like India requires foreign exchange for meeting its balance of payments deficits. India needs earnings from exports, capital inflows and loans.

Tax rates

With a liberal taxation policy, the economy booms as people are left with more disposable income. They have an incentive to work harder and enjoy greater opportunities to save. Companies are able to plough back more profits and create assets. Whenever the government raises taxes, the stock markets react unfavourably. India is supposed to be one of the highest taxed nations in the world. Naturally, it continues to be one of the poorest. However, high tax rates are now a thing of the past. Starting from 1993-94, tax rates, both direct and indirect, have been reduced by the government.
KEY FINANCIAL INDICATORS

There are certain economic indicators which may be studied to assess the national economy as a whole. Some known as leading indicators, predict what is likely to happen to the economy. Perfect examples of leading indicators are the unemployment position, rainfall and agricultural production, fixed capital investment, corporate profiles, money supply, credit position and index of equity share prices.

Then there are the coincidental indicators which highlight the current position. Some examples of coincidental indicators are Gross National Product, Index of Industrial Production, money market rates, interest rates and reserve funds with commercial banks.

Finally, there are lagging indicators, which explain what has already taken place. Some examples of lagging indicators are large-scale unemployment, piled-up inventories, outstanding debt, interest rates of commercial loans, etc. While these indicators are useful, they are by no means infallible. One must use them with caution. These indicators can only be helpful in understanding economic trends and outlining the investment strategy intelligently.

Forecasting economic trends has never been an easy exercise. Even well-trained economists cannot do so accurately. Obviously, then, it is unrealistic to expect any individual investor to do so. One can refer to economic reports which are periodically published in newspapers and magazines.
INDUSTRY ANALYSIS

The second phase of fundamental analysis consists of a detailed analysis of a specific industry; its characteristics, past record, present state and future prospects. The purpose of industry analysis is to identify those industries with a potential for future growth, and to invest in equity shares of companies selected from such industries.

Each industry and company within a particular industry, undergoes a lifecycle with four distinct phases such as (a) pioneering stage, (b) expansion stage, (c) stagnation stage and (d) declining stage. An investor would benefit by investing in an industry only in its pioneering and expansion stages. One should get out of industries which have reached the stagnation stage, before they lapse into decline. The specific phase of an industry can be understood in terms of its sales and profitability.

Industries doing well today may be faced with stagnation and decline in future, as a result of changes in social habits, or from statutory controls, or from excess capacity and consequent cut-throat competition, or as a result of rising prices. Such analytical insights into various industries are essential for investors.

COMPANY ANALYSIS

Even though a particular industry may be thriving, certain companies in that industry may not be doing very well. On the other hand, it is quite likely that a few companies would do well despite the rest of the companies in that industry
facing difficulties. Hence, selecting individual companies for investment based on the industry performance is terribly tricky.

There are two major components of company analysis: financial and non-financial. A good analyst tries to give balanced weightage to both these aspects. Overemphasis on either may lead to distorted analysis.

Numerous non-financial aspects of a company have to be evaluated by an investor. An investor should take these factors into consideration so that he can form a qualitative impression of a company. Such information may be gathered from various sources like a prospectus, a stock exchange directory, annual reports, etc. A very useful tool of company analysis is SWOT analysis, which examines the strengths, weaknesses, opportunities and threats in the specific context of a given enterprise. Strengths and weaknesses are inherent in a company, whereas opportunities and threats are incumbent upon the external environment.

TECHNICAL ANALYSIS: THE MARKET-BASED METHOD

There is another approach, followed ardently by market operators and aggressive investors, called technical analysis.

A technical analyst believes that greater importance should be given to the technical aspects of the market such as prices, price alterations and trading volume. The time perspective of a technical analyst is short term. Technical analysts follow the charts of share prices and interpret them in the context of various technical features of the market as a whole.
Both these approaches to investment analysis, fundamental analysis and technical analysis are taken like two sides to the investment coin.

It is a process of identifying trend reversals at an earlier stage to formulate the buying and selling strategy. With the help of several indicators they analyse the relationship between price-volume and supply-demand for the overall market and the individual stock. Volume is favourable on the upswing, i.e. the number of shares traded is greater than before and on the downside the number of shares traded dwindles. If it is the other way round, trend reversals can be expected.

**IMPORTANCE OF THE STUDY**

The cement industry is one of the vital industries for economic development in a country. The total utilization of cement in a year is used as an indicator of economic growth. Cement is necessary for infrastructure development and a key raw material for the construction industry, especially in the government's development plans in the context of the nation's socioeconomic development.

Cement industry has been the hot sector for the past few decades. In 1990 investors in the cement industry gained substantially irrespective of what company they selected for investment, the reason being an excellent turnaround in the cement industry. During the recent past, large cement manufacturers reported higher revenues and improved profitability. However, smaller players were unable to improve their top-line and most posted losses. An increase in energy
costs on account of higher fuel prices was more than offset by higher increase in prices. As a result, operating profits increased. Hence, investment in the shares of the companies in this industry could be fruitful for the investors. The investment in cement companies brought more income to the investor than the other investment of shares. Cement industry has been emerging as one of the crucial sectors for the institutional as well as individual investors.

**STATEMENT OF THE PROBLEM**

The main objective of making investment in the shares of companies is to get secured maximum return. The investor has to carefully analyse various risks involved therein. In this regard, apart from the company’s performance and profitability investors should know how far the external factors have an impact on the share price variations to enable them to make informed investment decisions.

The market price of the shares of a company tends to change according to internal as well as external factors. The internal factors include profitability, dividend pattern, earnings per share, etc. The investors critically evaluate the price of the shares on the basis of these factors. At the same time, the external factors also play a pivotal role in determining the market price of the shares of a company. These factors include stock market indices, sectoral indices, changes in the political scenario, policies of the government and other governing authorities, etc. The external factors such as changes in the political scenario and policies of the government and governing authorities may have the least impact on the share
prices as they may occur occasionally. However, the stock market indices may have a greater impact on the share prices which determine the volatility or otherwise of the shares.

The present study has been undertaken to analyse the share price movement of cement industry as the infrastructure industry is getting importance rapidly.

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To predict the fluctuations of share prices of the selected cement companies in the Stock Market.

2. To measure the flow of money in the cement industry due to shares traded in the capital market.

3. To evaluate the impact of variations in the Sensex on the share prices of the selected cement companies.

4. To analyze the effect of changes in the nifty on the share prices of the selected cement companies.

5. To recapitulate the key findings and offer suggestions to invest in the Indian cement industries based on the findings of the study.
HYPOTHESES

The following hypotheses are framed and tested in this study.

1. The relationship between the share price of individual selected companies and the sensitivity index of BSE is not significant.
2. There is no significant relationship between the share price of individual selected companies and macroeconomic indicators.
3. No significant relationship exists between gold and silver rates and share price of individual selected companies.
4. There is no significant relationship between the share price and the selected market indicators.
5. The relationship between the share price behaviour and currency exchange rates is insignificant.
6. There is no significant relationship between share price and foreign investment inflows.
7. No significance of relationship exists between the share price and interest rates.

SCOPE OF THE STUDY

A better understanding of the stock market trend will facilitate allocation of financial resources to the most profitable investment opportunity. This study mainly concentrates on certain companies in cement industry. The study would be helpful for the investors for making prudent investment in cement industries. The
companies are selected based on market capitalization of the shares of cement industry in NSE.

METHODOLOGY

The present study has been designed to study the share price movement of selected Indian cement companies listed in NSE. The researcher has taken for study five industries such as 1.ACC Limited, 2. Ambuja Cements Limited, 3.Grasim Industries Limited, 4. India Cements Limited and 5. Madras Cements Limited.

(i) DATA COLLECTION

The study is based on the secondary data. The data on share price movement of select cement industries were collected from secondary sources like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries. Appropriate information on share price movements was collected from other secondary sources like financial journals, business magazines, books, Times of India and Business Line. The researcher has done fruitful and comprehensive discussions with senior faculty members of Indian Institute of Technology, Chennai, Institute of Financial Management and Research, Chennai, senior officials of selected cement industries, and with the help of official websites of select cement industries.
(ii) SAMPLING TECHNIQUES

The cement industries listed in National Stock Exchange are 51. Out of these 5 cement companies on the basis of market share, production and installed capacity were taken for this study, which account for 10 percent of the listed cement companies in National Stock Exchange.

(iii) STATISTICAL TOOLS USED

The analysis of data was done with the help of various mathematical and statistical tools. Simple tools such as mean, standard deviation, trend analysis and coefficient of variation were used in this study. Forecasting was done with the help of statistical trends. Multiple regression, Beta value, Multiple correlation, Average growth rate, Compound growth rate, ‘t’ test and ‘F’ test were also used in the present study for analyzing the data.

iv) PERIOD OF STUDY

The secondary data for the purpose of the study were collected for a period of six years. The study relates to the share price movements of select cement companies for a period of 6 years from 2003-04 to 2008-09.
LIMITATIONS OF THE STUDY

The researcher has taken all the necessary steps to carry out the research flawlessly. However, the data and information published by various organizations, used in this study, are not free from limitations.

1. The study concentrates on share price movement of select cement industries and hence the results may not be extended to other industries.

2. Due to the time and cost constraint, the sample size is restricted to five cement industries.

3. Many other aspects other than the factors selected in this study may also cause the share prices to change.

4. The price movements cannot be predicted accurately whether the price is moving up or coming down. The share price movements can be predicted only based on the assumptions.

5. The present study is confined to six years, so the changes which would have occurred before and would occur after this period are not taken into account.

CHAPTER SCHEME

The presentation of the study has been designed in five chapters.

The first chapter deals with the introduction and design of the study which comprises statement of the problem, objectives of the study, scope of the study, methodology, limitations and chapter arrangement.
In the second chapter review of previous studies is presented. The studies relating to share price movements, tools of analysis used, findings and suggestions of these studies have been reviewed. It attempts to differentiate the present study from the past ones.

The historical background and profile of the selected cement companies and their financial performance are presented in the third chapter. It includes the genesis and growth of the select cement companies, milestones and achievements have also been discussed.

The fourth chapter consists of analysis of monthly average share prices of select cement companies, money flow index of share prices, trend analysis of mean share prices, relationship between share prices and stock market indices – BSE Sensex and NSE Nifty, growth of share prices, quarterly moving average of share prices, analysis of factors influencing share prices – macro economic indicators, gold and silver rates, monetary aggregates, market indicators, exchange rates, foreign investment inflows and interest rates.

The fifth chapter summarises the findings of the study, provides suitable suggestions and conclusion for the study.